

Amendments to the Claims

1. *(Currently Amended)* An elastomeric stamp ~~(10)~~ for printing a pattern on a substrate ~~(500; 502)~~ with an ink ~~(520)~~, the stamp ~~(10)~~ being at least partially formed from a first material, the stamp comprising a first surface ~~(12)~~ in a first plane, a second surface ~~(14)~~ in a second plane and a third surface ~~(16)~~ extending from the first surface ~~(12)~~ to the second surface ~~(14)~~, the third surface ~~(16)~~ being permeable to the ink ~~(520)~~, the first surface ~~(12)~~ comprising a barrier layer ~~(22)~~ being substantially impermeable to the ink ~~(520)~~.

2. *(Currently Amended)* An elastomeric stamp ~~(10)~~ as claimed in claim 1, wherein the barrier layer ~~(22)~~ is non-covalently bound to the first surface ~~(12)~~.

3. *(Currently Amended)* An elastomeric stamp ~~(10)~~ as claimed in ~~claim 1, or~~ claim 1, wherein the first barrier layer ~~(22)~~ comprises an inorganic oxide.

4. *(Currently Amended)* An elastomeric stamp ~~(10)~~ as claimed in ~~claim 1 or~~ claim 1, wherein the first barrier layer ~~(22)~~ comprises a polymer material.

5. *(Currently Amended)* An elastomeric stamp ~~(10)~~ as claimed in ~~claim 1 or~~ claim 1, wherein the first barrier layer ~~(22)~~ comprises the first material in a modified form.

6. *(Currently Amended)* An elastomeric stamp ~~(10)~~ as claimed in ~~any of the~~ claims 1-5, claim 1, wherein the second surface ~~(14)~~ comprises a further barrier layer ~~(24)~~ being substantially impermeable to the ink ~~(520)~~.

7. *(Currently Amended)* An elastomeric stamp ~~(10)~~ as claimed in claim 6, wherein the first surface ~~(12)~~ and the third surface ~~(16)~~ form an angle between 60-90°.

8. *(Currently Amended)* An elastomeric stamp ~~(10)~~ as claimed in ~~claim 6 or~~ claim 6, wherein the further barrier layer ~~(24)~~ is of the same material as the barrier layer ~~(22)~~.

9. *(Currently Amended)* A method for printing an ink ~~(520)~~ in a pattern on a substrate ~~(500; 502)~~ of an electronic device using an elastomeric stamp ~~(10)~~, the elastomeric stamp ~~(10)~~ being at least partially formed from a first material, the elastomeric stamp ~~(10)~~ comprising a first surface ~~(12; 22)~~ in a first plane, a second surface ~~(14)~~ in a second plane and a third surface ~~(16)~~ extending from the first surface ~~(12; 22)~~ to the second surface ~~(14)~~, the third surface ~~(16)~~ being permeable to the ink ~~(520)~~, the first surface ~~(12; 22)~~ comprising a barrier layer ~~(22)~~ being substantially impermeable to the ink ~~(520)~~, the method comprising the steps of:

bringing the elastomeric stamp ~~(10)~~ into contact with a supply ~~(510)~~ of an ink solution;

absorbing the ink solution in the first material;

cleaning at least the barrier layer ~~(22)~~ of the elastomeric stamp ~~(10)~~;

drying the elastomeric stamp ~~(10)~~; and

forming at least a part of the pattern by placing the elastomeric stamp ~~(10)~~ on the substrate ~~(500; 502)~~ with the barrier layer ~~(22)~~ contacting the substrate and transferring the ink ~~(520)~~ from the first material to the substrate ~~(500; 502)~~ via the third surface ~~(14)~~.

10. *(Currently Amended)* A method as claimed in claim 9, wherein the step of cleaning at least the barrier layer ~~(22)~~ of the elastomeric stamp ~~(10)~~ comprises rinsing the elastomeric stamp ~~(10)~~ with a solvent.

11. *(Currently Amended)* A method of producing a patterned elastomeric stamp ~~(10)~~ for printing an ink ~~(520)~~ on a substrate ~~(500; 502)~~ of an electronic device, the method comprising the steps of:

providing a master ~~(300)~~ having a first surface ~~(312)~~ in a first plane, a second surface ~~(314)~~ in a second plane and a third surface ~~(316)~~ extending from the first surface ~~(312)~~ to the second surface ~~(314)~~;

depositing a first material precursor on said surfaces ~~(312; 314; 316)~~ of the master ~~(300)~~;

generating an elastomeric stamp (10) having a first surface (12) in a first plane, a second surface (14) in a second plane and a third surface (16) extending from the first surface (12) to the second surface (14) by transforming the first material precursor to a first material, said surfaces (12; 14; 16) of the elastomeric stamp (10) being permeable to the ink (520); and

forming a barrier layer (22) on the first surface (12) of the elastomeric stamp (10); the barrier layer (22) being impermeable to the ink (520).

12. *(Currently Amended)* A method as claimed in claim 11, wherein the step of forming a barrier layer (22) on the first surface (12) of the elastomeric stamp (10) comprises anisotropically depositing a metal on the first surface (12) of the elastomeric stamp (10).

13. *(Currently Amended)* A method as claimed in claim 12, further comprising the step of oxidizing the barrier layer (22).

14. *(Currently Amended)* A method as claimed in claim 11, wherein the step of forming a barrier layer (22) on the first surface (12) of the elastomeric stamp (10) comprises forming a layer of polymer material on the first surface (12) of the elastomeric stamp (10).

15. *(Currently Amended)* A method as claimed in claim 14, wherein the step of forming a layer of a polymer material on the first surface (12) of the elastomeric stamp (10) comprises adhering a polymer material to the first surface (12) of the elastomeric stamp (10).

16. *(Currently Amended)* A method as claimed in claim 14, wherein the step of forming a layer of a polymer material on the first surface (12) of the elastomeric stamp (10) comprises depositing a precursor of the polymer material on the first surface (12) of the elastomeric stamp (10); and

forming the layer of the polymer material from the precursor.

17. *(Currently Amended)* A method as claimed in claim 16, wherein the step of forming the layer of the polymer material from the precursor is preceded by depositing a polymerization initiator on the first surface ~~(12)~~ of the elastomeric stamp ~~(10)~~.

18. *(Currently Amended)* A method as claimed in claim 14, further comprising the steps of: modifying the first surface ~~(312)~~ of the master ~~(300)~~; and depositing a precursor of the polymer material on the modified first surface ~~(322)~~ of the master ~~(300)~~.

19. *(Currently Amended)* A method as claimed in claim 11, wherein the step of forming a layer ~~(22)~~ of a second material on the first surface ~~(12)~~ comprises modifying a layer of the first material at the first surface ~~(12)~~.

20. *(Currently Amended)* A method as claimed in ~~any of the claims 11-19~~claim 11, further comprising the step of forming a further barrier layer ~~(24)~~ on the second surface ~~(14)~~ of the elastomeric stamp ~~(10)~~, the further barrier layer ~~(24)~~ being impermeable to the ink.

21. *(Currently Amended)* A method as claimed in claim 20, wherein the further barrier layer ~~(24)~~ is formed from a same material as the barrier layer ~~(22)~~.